



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/419,968	10/18/1999	SANDIP SARKAR	PA990566	2151

23696 7590 04/09/2002

Qualcomm Incorporated  
Patents Department  
5775 Morehouse Drive  
San Diego, CA 92121-1714

EXAMINER

SONG, HOSUK

ART UNIT	PAPER NUMBER
----------	--------------

2131

DATE MAILED: 04/09/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
**09/419,968**

Applicant(s)  
**SAKAR**

Examiner  
**Ho S. Song**

Art Unit  
**2131**

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Jan 9, 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 6
- 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: \_\_\_\_\_

Art Unit: 2131

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Lee et al(US 4,484,027).

In claim 1, Lee teaches processing a received signal and extracting random data bits from processed receive signal in (fig.1,#36,34).

2. Claim 5 is rejected under 35 U.S.C. 102(b) as being anticipated by Epstein (US 5,517,567).

In claim 5, Epstein disclose use of a random number generator #202 as part of element #200; the wireless device. As device #202 is a part of the wireless device, the bits are generated for use by device #202 are in effect generated by the wireless device. Hence, generating a random numbers from data bits generated from existing wireless phone hardware and encryptor for encrypting a signal using said random numbers are disclosed by Epstein in (col.2, lines 61-67; col.3, lines 45-50).

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2131

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2,4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al.(US 4,484,027) in view of Waldroup et al.(US 6,070,058).

In claim 2, Lee discloses all the limitations above. Lee does not disclose step of processing received signal with a receive automatic gain control circuit(AGC). Waldroup's patent(US 6,070,058) discloses processing received signal with a receive automatic gain control circuit(AGC) in (col.9, lines 12-23). It would have been obvious to person of ordinary skill in the art at the time the invention was made to employ AGC taught in Waldroup with receiver disclosed in Lee in order to control such amplitude variations such that cellular phone or wireless device keeps in-band energy is transmitted to demodulator at a fixed level thus allowing incoming received signal to be normalized.

In claim 4, Lee discloses all the limitations above. Lee does not disclose Time Tracking Loop. The examiner takes Official notice that Time Tracking Loop is well known in the art especially in the wireless communication environment. One of ordinary skill in the art would be motivated to use Time Tracking Loop in order to track variations in the receive propagation delay over time and thus maintaining bit synchronization.

5. Claims 6, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Epstein.(US 5,517,567) in view of Waldroup et al.(US 6,070,058).

Art Unit: 2131

In claim 6, Epstein discloses all the limitations above. Epstein does not disclose step of processing received signal with a receive automatic gain control circuit (AGC). Waldroup's patent (US 6,070,058) discloses processing received signal with a receive automatic gain control circuit (AGC) in (col.9, lines 12-23). It would have been obvious to person of ordinary skill in the art at the time the invention was made to employ AGC taught in Waldroup with receiver disclosed in Epstein in order to control such amplitude variations such that cellular phone or wireless device keeps in-band energy is transmitted to demodulator at a fixed level thus allowing incoming received signal to be normalized.

In claim 8, Epstein discloses all the limitations above. Epstein does not disclose Time Tracking Loop. The examiner takes Official notice that Time Tracking Loop is well known in the art especially in the wireless communication environment. One of ordinary skill in the art would be motivated to use Time Tracking Loop in order to track variations in the receive propagation delay over time and thus maintaining bit synchronization.

6. Claims 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (US 4,484,027) in view of Lee et al. (US 6,038,266).

In claim 3, Lee discloses all the limitations above. Lee does not disclose processing received signal with a DC Offset Correction Loop. Lee discloses DC offset correction circuit in (col.10, lines 53-55). It would have been obvious to person of ordinary skill in the art at the time the invention was made to employ DC offset correction circuit taught in Lee with receiver disclosed in Lee in order to prevent instability of signal as well as correct for DC offset.

Art Unit: 2131

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Epstein.(US 5,517,567) in view of Lee et al(US 6,038,266).

In claim 7, Epstein discloses all the limitations above. Epstein does not disclose processing received signal with a DC Offset Correction Loop. Lee discloses DC offset correction circuit in (col.10, lines 53-55). It would have been obvious to person of ordinary skill in the art at the time the invention was made to employ DC offset correction circuit taught in Lee with receiver disclosed in Epstein in order to prevent instability of signal as well as correcting DC offset.

***Response to Applicant's Arguments***

8 The previous rejection based on Owens and Takamatsu patents are withdrawn in view of Applicant's arguments. New rejections are presented above. However, previous rejection based on Lee et al.(US 4,484,027) , Lee et al(US 6,038,266) and Waldroup patents remain rejected.

**Applicant argues** that in claim 1, Lee(US 4,484,027) does not teach a method of generating the random number but merely illustrates a random number generator element of a transmitter rather than a receiver and also Lee does not teach processing a received signal. **In response:** claim 1 recites "A method for generating random data bits in wireless communications device, comprising the steps of: processing a received signal; and extracting said random data bits from said processed receive signal." The examiner disagree because the way claim is currently drafted, the receiver does not recite randomly extracting data bits from the received signal. The examiner

Art Unit: 2131

asserts that a random number number is ineffect random data bits because the number is composed of data bits..

9. Any inquiry concerning this communication from the examiner should be directed to Examiner Ho S. Song at telephone number is (703)305-0042. The examiner can normally be reached on Tuesday-Friday from 6:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gail Hayes, can be reached on (703)305-9711.

Any inquiry of a general or relating to the status of this application or proceeding should be directed to the Technology Center receptionist whose telephone number is (703)305-3800.

*Ho Song*

*Gail Hayes*  
GAIL HAYES  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100